

## **REMARKS/ARGUMENTS**

Claims 1-20 were previously pending in the application. Claim 11 is amended and new claims 21-23 are added herein. Assuming the entry of this amendment, claims 1-23 are now pending in the application. The Applicant hereby requests further examination and reconsideration of the application in view of the foregoing amendments and these remarks.

### **Election/Restriction:**

On page 4 of the office action, The Examiner made the previously imposed restriction final. The Examiner acknowledged Applicant's election of Species A and D and withdrew from consideration claims 4-8, 10, and 13-16 as directed to the non-elected species.

On page 2, the Examiner stated that one of Applicant's grounds for traversal of the restriction requirement was that "claim 17 is not generic; claim 1 is defined as the generic claim." Also, on page 3, the Examiner stated that "Examiner is persuaded by applicant that claim 1 is generic and not 17 in the telephonic interview." In response, the Applicant submits that these statements misrepresent Applicant's position with respect to claims 1 and 17. More specifically, the Applicant never argued that claim 17 is not generic. In fact, what the Applicant argued was that not only claim 17 is generic, but claim 1 is also generic (see the last paragraph on page 2 of Applicant's response submitted on 11/07/2005). For these reasons, the Applicant objects to the above-cited statements.

Furthermore, the Applicant maintains that the restriction requirements with respect to Species B and C and species E and F were improper. More specifically, the Examiner classified a device having two sensors and a device having a plurality of sensors as belonging to different species. The Applicant submits that this classification is improper because the meaning of the term "plurality" clearly includes "two."

### **Drawings:**

On page 4 of the office action, the Examiner objected to the drawings as not showing a sensor that "protrudes through the internal and external tubes." In response, the Applicant amended claim 11 to remove the objected-to limitation and recite that "the first sensor is exposed on an exterior of the external tube." Support for this amendment can be found, e.g., page 6, lines 7-9, and in Fig. 5. In view of this amendment, the Applicant submits that the objection to the drawings under 37 CFR 1.83(a) is overcome.

### **Claim Rejections:**

On page 6 of the office action, the Examiner rejected claims 1-3, 9, 12, and 17-20 under 35 U.S.C. § 102(b) as being anticipated by Kurtz. On page 7, the Examiner rejected claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Kurtz in view of Leschinsky. For the following reasons, the Applicant submits that all claims are allowable over the cited references.

Claim 1 recites, *inter alia*, a first sensor mounted onto a side of an optical fiber and optically coupled to said fiber. In the rejection of claim 1, the Examiner stated that this feature is disclosed in Kurtz's Figs. 1A and 3A-E.

Kurtz's Fig. 1A shows a piezo-optical switch having sensing element (sensor) 12 and detector system 14. Detector system 14 has optical fiber 29b configured to direct light to and receive light from sensor 12. However, Fig. 1A does not show that sensor 12 is mounted onto fiber 29b. In fact, Fig. 1A clearly shows that sensor 12 is detached from fiber 29b. Inspection of the

corresponding text in Kurtz reveals that the only description of the structural relationship between sensor **12** and fiber **29b** is given in col. 4, lines 16-26, which reads as follows:

Light leaving cable section **29b** is incident on the surface **26** of porous layer **18** and is reflected by the reflective layer formed on the surface of cap layer **20**. The reflected light is then received and transmitted back through the fiber optic cable section **29b** but is reflected by two way mirror element **30** into a third fiber optic cable section **32**, whereupon the light is received by a detection means **34** which is adapted to determine whether the light has been reflected or absorbed by the sensing element as well as the degree to which it has been absorbed.

The Applicant submits that neither Fig. 1A nor its description in Kurtz teaches or even suggests “a first sensor mounted onto a side of an optical fiber and optically coupled to said fiber,” as explicitly recited in claim 1.

Kurtz’s Figs. 3A-E show a progression of manufacturing steps for an embodiment of sensor **12**. More specifically, Figs. 3A-E show how the sensor is fabricated using a multilayer wafer of semiconductor materials (see, e.g., col. 5, lines 60-63, and col. 6, lines 40 and 54). Figs. 3A-E do not even show an optical fiber, let alone how the sensor would be mounted onto that fiber.

For all these reasons, the Applicant submits that the Examiner mischaracterized the teachings of Kurtz and used them improperly to reject claim 1 and that claim 1 is allowable over Kurtz. For similar reasons, the Applicant submits that claims 17 and 20 are also allowable over Kurtz. Since the remaining claims depend variously from claims 1, 17, and 20, it is further submitted that those claims are also allowable over Kurtz and the combination of Kurtz and Leschinsky. The Applicant submits therefore that the rejections of claims under §§ 102 and 103 have been overcome.

New claims 21-23:

Support for new claims 21-23 can be found, e.g., in Applicant’s Figs. 1 and 5 and on page 3, line 17, and page 4, lines 1-8. Claim 22 specifies that “the side is parallel to the longitudinal axis of the fiber.” Each of claims 21 and 23 has an analogous limitation. The Applicant submits that Kurtz and Leschinsky, independently or in combination, do not teach or suggest such a feature. This fact provides additional reasons for the allowability of claims 21-23 over Kurtz and Leschinsky.

In view of the above amendments and remarks, the Applicant believes that the now-pending claims are in condition for allowance. Therefore, the Applicant believes that the entire application is now in condition for allowance, and early and favorable action is respectfully solicited.

Respectfully submitted,

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